



The New Educational Policy in India: Towards a Digital Future

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Abstract

New Education Policy was formulated by the Government via a consultation process. It emerges as an inclusive, participatory, and holistic approach of MHRD initiated in January 2015, MHRDA new National Education Policy (NEP) has been approved by the Union Cabinet, which makes modifications in the Indian system of education from school to college. The New Education Policy outlines India's goal of becoming a knowledge superpower. As part of the restructuring, the Ministry of Human Resources Development (MHRD) became the Ministry of Education. NEP promotes ideas, concepts, applications, and problem-solving activities. This policy calls for more interactive teaching-learning. A technology-based educational approach is emphasized in this policy. This policy demonstrates a greater use of ICT for remote and interactive education at school and in higher education. The study in this paper shows the impact of ICT tools on future education and various methods for building virtual infrastructure for learning.

Introduction

Establishing a unit for digital and online learning will help with digital infrastructure and content. The Ministry of Human Resource Development (MHRD) will handle all e-education needs for schools and higher education. We will develop recommendations in the future to promote online education as a quality education mode in the face of the growing number of pandemics and epidemics (Wao et. al., 2020). Students benefit from National Education Policy's (NEP) flexibility and it also gives their choice of specialized subject in study, at secondary school level options subjects are vocational skills, physical education, and arts and crafts. The traditional curricular, co-curricular, and extracurricular will no longer exist. Or no direct demarcation of subjective branches like science, arts, or humanities. Likewise, the gap between academic and vocational programs has disappeared. The NEP 2020 introduces various aspects such as Online adult learning, regional e-content development, and Digital Education, these aspects are discussed in detail in this paper (National Education Policy, 2020).

Technology-Based Platform for Adult Learning in School

According to NEP, development in Quality technology options is needed for adult learning through various tools such as Apps, TV channels, Online courses, Online reading content and digital libraries by schools and it can made be available to targeted students other than normal teaching hours. It requires the establishment of Adult Education Centres for this purpose.

E-Content in Regional Language

Formal education has always struggled with time, distance, and languages. A large number of people have been able to access powerful tools following the emergence of IT. This has been made possible by developments in information, communication, and computing technologies. It is crucial that all Indian languages are preserved, developed, and kept alive. The policy will

focus on encouraging all Indian languages. There is a need for the various language institutes to promote scientific literacy in Indian and classical languages, as well as traditional arts that are often overlooked in modern education.

New education policy advocates the use of regional language higher education (Kushwah & Vijayakumar, 2001). The development of e-content in languages other than English and local and national languages is very essential. The learners will be better equipped to comprehend the material. In India, e-learning systems (Phutela & Dwivedi 2020) and online courses are already in place, but as a multilingual country that emphasizes regional languages, facilities for multilingual e-learning must also be available.

Digital Education

NEP advocates the use of digital technologies at both the school level and higher education. The policy of NEP recommended some key initiatives like Pilot Studies on Online Education, Digital infrastructure, Online Teaching Tools, Digital Content Creation, 24/7 Content Availability, Lab Simulation, Teachers Training for Digital Education, Online Examinations, Blended learning models, Establishing standards, and many more.

Pilot studies in online education will be conducted at several institutions such as the National Educational Technology Forum (NETF), Central Institute of Educational Technology (CIET), Indira Gandhi National Open University (IGNOU), National Institute of Open Schooling (NIOS), Indian Institutes of Technology (IITs), and National Institutes of Technology (NITs). An evaluation for integrating online education with traditional education has been carried out in this pilot study. To provide online education, a digital infrastructure must be constructed in which multiple platforms are provided. The platforms will ensure technology-based solutions for public domain problems.

Teachers and students can communicate in two-way interactive learning using e-Learning management platforms such as UGC-SWAYAM (Study Webs of Active–Learning for Young Aspiring Minds), National Programme on Technology Enhanced Learning (NPTEL), Digital Infrastructure for Knowledge Sharing (DIKSHA), etc. These e-learning tools allow learners to monitor their progress through user-friendly interfaces. An entire digital repository will be constructed by using coursework creation, learning games, and simulation. These digital repositories will provide effectiveness and quality of education to the users.

Availability of digital content has no time restriction with the classroom timetable. It can be broadcast on television radio and social platforms in different languages and made available 24/7. Virtual lab platforms such as UGC-SWAYAM, DIKSHA, SWAYAM Prabha, Virtual Labs (VLab) are helpful for the learners to study practical subjects and create the simulation to understand the laboratory concepts easily.

For high-quality online content development, teachers must be trained to handle the digital educational platforms and convey the knowledge to the learners. In the entire education process, assessment is a very critical criterion therefore in an online education format online examinations have a significant role to assess the potential of learners. For this many proposed bodies like National Assessment Centre, National Testing Agency (NTA), School Boards are available and they are implementing various assessment frameworks. In digital education, the significance of interactive in-person academics is valuable. Various effective blended learning models will be developed in the future for the subject matter.

A specific standard of online/digital education is set up by appropriate bodies. In general, these standards are evaluated based on pedagogy, digital content, and technology. Guidelines are

needed and must be developed for state and central boards, schools, higher education institutions, etc (Gope et al., 2021).

An International Standard for Digital Infrastructure

Digital ecosystems will unlock \$700 billion in opportunities for India by 2030, including in healthcare, talent, agriculture, small and medium businesses, and education. Aadhar, Unified Payments Interface (UPI), and Covid Vaccine Intelligence Network (CoWIN) are three of the largest public digital platforms in the world. They have substantially accelerated India's transition to digitalization and play an integral role in advancing the 5-trillion-dollar economy aspiration.

Indian growth will be boosted by the inclusion of online learning and the participation of edtech companies in the National Education Policy 2020. A multitude of problems has plagued the country to date, such as infrastructural issues, power outages, accessibility problems, and Internet service issues. It spends nearly 4.6% of its Gross domestic product (GDP) on education, significantly less than most of The Group of Twenty (G20) countries and not enough to meet the aspirations of Indian students. Because students can no longer attend colleges abroad, the country must develop world-class resources for them to use. The Ministry will create a unit responsible for overseeing the development and implementation of e-learning for both higher education and school systems. High-quality e-learning content is delivered using this technology rapidly. The digital environment needs to develop solutions to solve India's challenges. The acting elements of digital education are facilitators or experts from educational technology, assessment, digital pedagogy, e-governance, etc.

Issues Related to ICT Implementation

Indian education can be strengthened and improved by digital technologies (often referred to as Information and Communication Technologies, or ICT) (Gupta, et. al., 2008; Shamsu, 2012). Due to the lack of a clear framework for program design, despite numerous attempts by governments and other actors, there has been little impact on learning processes and outcomes.

Educators and students need to be able to access and utilize ICT in their learning by integrating an ICT Lab into the educational institute's infrastructure. The lab should have an education software and content server for storing and retrieving data on other (connected) devices, for access to the Internet and serve the management information system and its people information system.

To support education in society, ICT infrastructure and resources should be publicly owned to ensure universal access and equitable participation (Vermeulen et. al., 2017; Bankole et al., 2011). The public nature of education strongly aligns with free and open ICT architectures. The national ICT policy recommends the use of FOSS (Free and Open-Source Software) and OER in school education. These open-source software systems allow free re-use, revision, and re-distribution, which fosters sharing.

Radio and television were used as ICT tools in the past, but computers and mobile phones have surpassed them as effective tools recently. Smartphones have become ubiquitous in India. Anganwadi's ECCE teachers will be trained by digital and distance modes of learning using Direct-To-Home DTH channels, smartphones, etc. Performance Assessment, Review, and Analysis of Knowledge for Holistic Development (PARAKH), a national assessment center, has been established for assessing students. Coding, computational thinking, and life skills with financial literacy are all part of digital literacy. Use of Artificial Intelligence (AI) in digital data handling. Digitally storing academic credits of HEIs with ABC (Academic Bank of Credit).

For grades 6-12., online courses in the field of vocational training are available. The ICT enables modern telecommunications to serve all segments of India's culturally diverse society and to turn it into a country of technologically literate people.

Conclusion

Digital technologies are fuelled by e-content and data, raising awareness about privacy, regulations, and standards. Data handling and protection are concerned with these issues. A critical component of digital education is teaching students how to use technology ethically to build nations. Besides educating students about the benefits of renewable energy, sustainable agriculture, water conservation, environmental conservation, and other eco-green initiatives, digital education also informs them about eco-friendly initiatives. The right training can turn good teachers into effective online educators. Online assessment, internet accessibility, and poor signal quality can be addressed using innovative methods in online education. Online education integrates experience-based and activity-based learning. In the new era of education, learning powered by ICT is the future.

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